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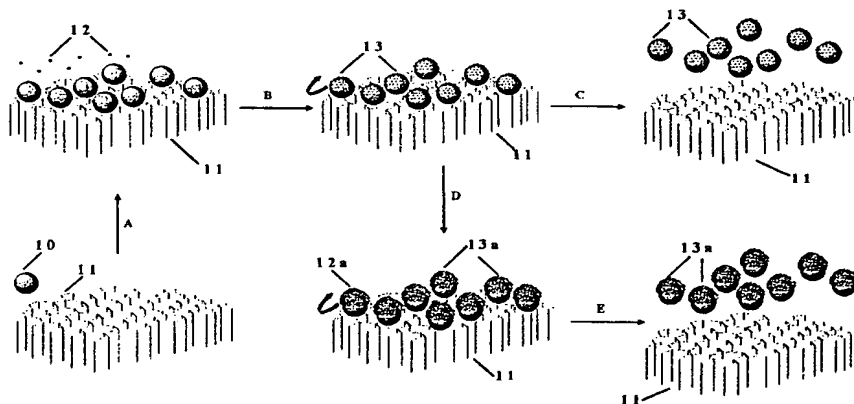
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(54) Title: METHOD FOR THE MANUFACTURE OF PATTERNED MICRO-AND NANOPARTICLES AND USE OF SUCH PARTICLES IN THE ASSEMBLY OF NANOSCALE ARCHITECTURES IN SOLUTION



(57) **Abstract:** A method for the manufacture of patterned microparticles comprises immobilising microparticles, including nanoparticles, to be patterned on a surface of a porous membrane, causing an inorganic or organic coating material which can bind to exposed surfaces of said microparticles, and which can permeate through the pores of said membrane, to flow relative to said immobilised microparticles, and removing the microparticles from the membrane following binding of said coating material. The method enables one to prepare a wide range of anisotropically-modified patterned microparticles, including microparticles patterned with nanoparticles or a biomolecular material such as DNA and protein. The patterned microparticles produced can be used in wide range of applications in health, information and communication, and sustainable environment such as shelter, clothing, energy, food, transport and security.

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